

CLAIMS

What is claimed is:

- 1 1. A method for canceling a task in a computer system, the computer system comprising a
2 task scheduler for managing a plurality of tasks using at least one task queue, wherein the
3 task scheduler is arranged to free resources assigned to a cancelled task of the plurality of
4 tasks when the cancelled task reaches the top of any of the at least one task queue, the
5 method comprising steps of:
6 - identifying a task from the plurality of tasks as a cancelled task;
7 - actively prioritizing the identified task to the top of its corresponding task
8 queue; and
9 - allowing the task scheduler to free resources assigned to the identified task.
- 1 2. The method of claim 1, wherein the step of identifying comprises a step of calling a Cancel
2 function associated with the identified task.
- 1 3. The method of claim 1, wherein the steps of identifying and prioritizing are performed by
2 calling a CancelAndRemove function associated with the identified task.
- 1 4. The method of claim 1, wherein the step of prioritizing further comprises a step of setting a
2 NextExecution parameter of the identified task to a value near zero.
- 1 5. The method of claim 4, wherein the step of prioritizing further comprises a step of
2 updating an Index parameter associated with the identified task in accordance with the top
3 of its corresponding task queue.
- 1 6. The method of claim 1, wherein the step of allowing further comprises notifying a memory
2 garbage collector associated to the task scheduler.

- 1 7. A task scheduler within a computer system comprising:
 - 2 - at least one task queue capable of managing a plurality of tasks;
 - 3 - a prioritizing module capable of:
 - 4 - actively prioritizing a task within the plurality of tasks to the top of
 - 5 its corresponding task queue, wherein the task has been identified
 - 6 as a cancelled task; and
 - 7 - a memory garbage collector capable of:
 - 8 - freeing resources assigned to the identified task when the
 - 9 identified task reaches the top of any of the at least one task queue.
- 1 8. The task scheduler of claim 7, wherein the prioritizing module is further capable of setting
2 a NextExecution parameter of the identified task to a value near zero.
- 1 9. The task scheduler of claim 7, wherein the prioritizing module is further capable of
2 updating an Index parameter associated with the identified task in accordance with the top
3 of its corresponding task queue.
- 1 10. The task scheduler of claim 7, wherein the prioritizing module is further capable of
2 notifying the memory garbage collector.